Phase 2 - System Modelling and Design Phase Brief

Submission Deadline: 23rd January 2024

Submission Guidance: You will submit to turnitin the **hash** of commit you wish to be used for phase 2, ensure that this is the hash on the `phase/2` branch.

Useful links

- Official Documentation for Markdown
- GitHub Documentation for Markdown-Cheatsheet
- Mermaid Gantt Chart Documentation
- PlantUML Documentation
- PlantUML Use Case Diagrams
- PlantUML Class Diagrams
- PlantUML Activity Diagrams
- PlantUML State Diagrams
- PlantUML Architecutre Diagrams

Structure of the System Modelling and Design Phase Report

You will need to produce a **markdown** documentation in the form of a report that details the requirements phase of the project.

- ensure that once the project is cloned to your local machine that you checkout to `'phase/2'` and branch off of this to your own branch using the following standard: `'phase/2-gitusername'`. As part of your workflow, you will merge back into `'phase/2'` **ONLY**.
- **Do not** merge to `main`.

Working as a team you will assign each other tasks to complete phase 1, refer to the required sections for the `README.md` file below.

The requirements phase `README.md` should include the following information:

Structure of the System Modelling and Design Phase Report

The system modelling and design phase report should include the following sections:

- **Introduction** - specifying what diagrams are included in the report and what is their purpose.
- **Table** - indicating the allocation of tasks to team members.
- The following diagrams (included in the Appendix and not the main body of the report)
- Overall System Archictecture ;
  - **Use Case diagrams** - including the tabular representation of the use cases;
  - **Sequence diagrams**;
  - **Class diagrams**;

- **Activity diagrams**;
- **State chart diagrams**.
- **An updated Gantt chart of the project plan** – using Mermaid Gantt Chart Template at the end of the README.md file under a section called Appendix to be included in the Appendix.

Marking Scheme

This phase of the assignment contributes 30% of the total coursework mark.

The marks are distributed as follows:

- The overall architecture of the system 12.5%
- UML use case diagrams and tables 12.5%
- Sequence diagrams 12.5%
- Class diagrams 12.5%
- Activity diagrams 12.5%
- State chart diagrams 12.5%
- Git Workflow 15%
- Report structure and presentation 10%

Full Rubric

Overall Architecture of the System (12.5%)

Criteria	Description
Exceptional (10-12.5)	Comprehensive and well-thought-out system architecture.
Proficient (7.5-10)	Sound system architecture with some minor gaps.
Competent (5-7.5)	Adequate system architecture but with noticeable gaps.
Limited (2.5-5)	Incomplete or unclear system architecture.
Insufficient (0-2.5)	No discernible system architecture or significant flaws.

UML Use Case Diagrams and Tables (12.5%)

Criteria	Description
Exceptional (10-12.5)	Clear, comprehensive use case diagrams and tables.
Proficient (7.5-10)	Well-constructed use case diagrams and tables.
Competent (5-7.5)	Acceptable use case diagrams and tables with notable omissions.
Limited (2.5-5)	Incomplete or unclear use case diagrams and tables.
Insufficient (0-2.5)	Missing or severely flawed use case diagrams and tables.

Sequence Diagrams (12.5%)

Criteria	Description
Exceptional (10-12.5)	Well-crafted sequence diagrams depicting accurate system interactions.
Proficient (7.5-10)	Competent sequence diagrams with minor improvements possible.
Competent (5-7.5)	Acceptable sequence diagrams with noticeable gaps.
Limited (2.5-5)	Incomplete or unclear sequence diagrams.
Insufficient (0-2.5)	Missing or severely flawed sequence diagrams.

Class Diagrams (12.5%)

Criteria	Description
Exceptional (10-12.5)	Detailed and accurate class diagrams.
Proficient (7.5-10)	Well-constructed class diagrams with minor improvements possible.
Competent (5-7.5)	Acceptable class diagrams with noticeable gaps.
Limited (2.5-5)	Incomplete or unclear class diagrams.
Insufficient (0-2.5)	Missing or severely flawed class diagrams.

Activity Diagram (12.5%)

Criteria	Description
Exceptional (10-12.5)	Clear and well-constructed activity diagrams.
Proficient (7.5-10)	Competent activity diagrams with minor improvements possible.
Competent (5-7.5)	Acceptable activity diagrams with noticeable gaps.
Limited (2.5-5)	Incomplete or unclear activity diagrams.
Insufficient (0-2.5)	Missing or severely flawed activity diagrams.

State Chart Diagrams (12.5%)

Criteria	Description
Exceptional (10-12.5)	Comprehensive and accurate state chart diagrams.
Proficient (7.5-10)	Well-constructed state chart diagrams with minor improvements possible.
Competent (5-7.5)	Acceptable state chart diagrams with noticeable gaps.
Limited (2.5-5)	Incomplete or unclear state chart diagrams.
Insufficient (0-2.5)	Missing or severely flawed state chart diagrams.

Git Workflow(15%)

Criteria	Description
Exceptional (12.5-15)	Proficient use of Git, demonstrating a clear understanding of branching, merging, and collaboration.
Proficient (10.5-12.4)	Competent use of Git with minor improvements possible.
Competent (6.5-10.4)	Acceptable use of Git with noticeable gaps or errors.
Limited (2.5-6.4)	Incomplete or unclear use of Git.
Insufficient (0-2.4)	Missing or severely flawed use of Git.

README.md Structutre and Presentation (10%)

Criteria	Description
Exceptional (8.5-10)	Well-organized and coherent report structure.
Proficient (6.5-8.4)	Well-structured report with minor improvements possible.
Competent (5-6.4)	Acceptable report structure with noticeable gaps.
Limited (2.5-4.9)	Incomplete or unclear report structure.
Insufficient (0-2.4)	Missing or severely flawed report structure.